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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/053,144 | 01/18/2002 | Eric C. Erike | TRW(VSSIM)3971-1 | 6501 |

26294 7590 02/02/2004

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| EXAMINER | |
|---|---|
| COMBS, JANELL A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1742 | |

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/053,144 | ERIKE, ERIC C. | |
| | Examiner | Art Unit | |
| | Janelle Combs-Morillo | 1742 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *27 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) *9-11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *011802*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of group I in response filed October 27, 2003 is acknowledged. The traversal is on the ground(s) that the inventions are not patentably distinct and would not require additional search. This is not found persuasive because it is well settled that a product-by-process claim defines a product, and the instant welded construction could be made by a materially different process such as forging (and therefore would require an additional search).

The requirement is still deemed proper and is therefore made FINAL.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 62-253732.

JP 62-253732 teaches a process of working an austenitic stainless steel strip comprising the steps of: hot rolling with a finishing temperature >950°C, quenching, pickling, cold rolling with a total reduction >30%, and annealing. The austenitic stainless steel composition taught by JP'732 comprises (in weight%): less than 0.07% C, 18% Cr, and 8% Ni, which overlaps or touches the boundary of the presently claimed composition.

JP'732 does not teach a) the temperature the slug is at during hot rolling, or b) reducing the steel sheet in the last cold rolling pass 3-13% (independent claim 1) or 5-13% (independent claim 8).

Concerning item a), because JP'732 teaches a hot rolling finishing temperature >950°C, it is held that the disclosure of JP'732 would enable one of ordinary skill in the art to hot roll austenitic stainless steels at a slug temperature of 1000-1200°C (or 1100°C, as in claim 6).

Concerning item b), changes in temperature, concentrations, or other process conditions of an old process does not impart patentability unless the recited ranges are critical, i.e. they produce a new and unexpected result. However, said parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977), See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Because cold rolling at a given deformation achieves a recognized result (reduction in thickness), and because applicant has not shown criticality over the entire claimed range, the rejection is deemed proper. Therefore, it is held that JP'732 has created a prima facie case of obviousness of the presently claimed invention.

Concerning dependent claims 2 and 3, because JP'732 teaches a substantially overlapping alloy composition processed substantially as presently claimed, then substantially the same mechanical properties (such as YS, UTS, and elongation) are expected to occur.

Concerning dependent claim 4, as stated above, JP'732 comprises (in weight%): less than 0.07% C, 18% Cr, and 8% Ni, which overlaps or touches the boundary of the presently claimed composition.

Concerning dependent claim 5, as stated above, because optimum or workable ranges of cold rolling reduction is characterized as routine experimentation, and applicant has not shown the unexpected results with regard to the prior art of record, the rejection is deemed proper.

Concerning dependent claim 7, as stated above, JP'732 teaches pickling after quenching.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemezura et al (US 5,858,135).

Niemezura et al teaches a process of working an austenitic stainless steel strip comprising the steps of: starting with a slab approximately 7-10 inches thick (column 1 lines 40-41), hot rolling said slab at temperatures above 1093°C (column 1 lines 48-49) to thickness typically ~ 0.1 inches (column 1 line 53), cooling to a cold rolling temperature (column 1 lines 58-61), pickling (column 5 line 5), cold rolling to thickness typically ~ 0.75-4.2 mm (column 5 line 30), wherein said cold rolling can include a final pass with 0.5-2% reduction (column 2 lines 1-3). The above stated process can be applied to Cr-Ni austenitic stainless steel alloys with 0.4% max C, 5-38% Ni, and 15-28% Cr (column 4 lines 4-6).

While the exact numerical ranges as claimed are not specified by Niemezura et al, the alloy composition taught by Niemezura et al overlaps the presently claimed alloy composition ranges. Because Niemezura et al teaches that it is well known to process such austenitic stainless steel alloys in a manner substantially as presently claimed, Niemezura et al is held to create a prima facie case of obviousness of the presently claimed invention.

Niemezura does not teach reducing the steel sheet in the last cold rolling pass 3-13% (independent claim 1) or 5-13% (independent claim 8).

Changes in temperature, concentrations, or other process conditions of an old process does not impart patentability unless the recited ranges are critical, i.e. they produce a new and unexpected result. However, said parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977), See also *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Because cold rolling at a given deformation achieves a recognized result (reduction in thickness), and because applicant has not shown criticality over the entire claimed range, the rejection is deemed proper. Therefore, it is held that Niemezura has created a prima facie case of obviousness of the presently claimed invention.

Concerning dependent claims 2 and 3, because Niemezura teaches a substantially overlapping alloy composition processed substantially as presently claimed, then substantially the same mechanical properties (such as YS, UTS, and elongation) are expected to occur.

Concerning dependent claim 4, as stated above, Niemezura teaches an overlapping alloy composition.

Concerning dependent claim 5, as stated above, because optimum or workable ranges of cold rolling reduction is characterized as routine experimentation, and applicant has not shown the unexpected results with regard to the prior art of record, the rejection is deemed proper.

Concerning dependent claim 6, as stated above, Niemezura teaches hot rolling said slab at temperatures above 1093°C (column 1 lines 48-49), which overlaps the presently claimed hot rolling temperature of "about 1100°C".

Concerning dependent claim 7, as stated above, Niemezura teaches pickling after quenching.

***Results in Specification***

5. The examiner notes that the present specification compares the instant invention (with a last cold rolling pass of 12.36%) to comparative examples (with a last cold rolling pass of 20%, 17.8%, and 13.1%), wherein hydrogen embrittlement takes place in the weld of the comparative examples but not in the instant invention.

The argument that the applicant has shown unexpected results has not been found persuasive, because the unexpected results are not commensurate in scope with the claimed invention (see MPEP 716.02 d). Whether the unexpected results are the result of unexpectedly improved results or a property not taught by the prior art, the "objective evidence of nonobviousness must be commensurate in scope with the claims which the evidence is offered to support." In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960). Applicant (whose only example of the present invention in the instant specification is at 12.36% reduction) has not

shown said unexpected results occur over the entire claimed range of "between about 3% and about 13%" (independent claim 1) or "between about 5% and about 13%" (independent claim 8).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER

Jcm
January 20, 2004